Containment Building (Debris Portion) Mixing Bin Tanks Process Flow Description

The Mixing Bin Tanks (MBT-3 and MBT-4) are located perpendicular to the south wall of the building. Waste will be placed into the tanks by accessing the truck ramps outside the south wall of the building. Treatment reagents will be manually added to the south end of the tanks. The reagents may be added through hard piping from product storage tanks located outside the south wall of the building, through front-end loader or dump truck from bulk reagent storage areas located else where on the site, from containerized reagent storage areas. Although not currently planned, the water and reagent additive system installed in the Stabilization Portion of the Containment Building may also be extended to the Debris Portion of the Containment Building to allow those additives to be automatically added to the tanks. The waste and additives will be mixed using an excavator similar to those used elsewhere at the facility. The excavators will be located on raised platforms that run parallel to the east side of each tank. When treatment has been completed, the treated waste will off-loaded from the tanks into dump trucks. The dump trucks will enter and exit the building through the overhead doors along the north wall of the building. Upon exiting the building, the trucks will follow established traffic patterns for moving the waste to the appropriate areas of the facility.

Waste Treatment (stabilization) in tanks in the Containment Building will utilize a variety of reagents, including but not limited to, cement, lime, ferrous sulfate, bleach, clay and sodium hydrogen sulfide. Due to the potential generation of hydrogen sulfide and other potential toxic gases during waste treatment, USEI conducts periodic air monitoring to demonstrate compliance with applicable environmental and safety regulations.

TABLE D-2a

RCRA MIX BIN TANKS (Debris Portion)					
Typical Use Waste/Process[1]	**Mix Bin Tank No.**	**Depth**	**Width**	**Length**	**Capacity (gallons)[2]**
Part A Solid Wastes, Part A aqueous wastes (organic and inorganic), Part A Hazardous Debris	MBT No.3	8 ft.	17 ft.	60 ft.	45,780
Part A Solid Wastes, Part A aqueous wastes (organic and inorganic), Part A Hazardous Debris	MBT No.4	8 ft.	17 ft.	60 ft.	45,780

3

[1] Waste over 500 ppm VOC are subject to 40 CFR § 264.1080 Subpart CC

[2] Volume assumes 2 ft. of freeboard based on engineered structural load capacities. Total capacity of each Mix Bin Tank is 61,000 gallons.

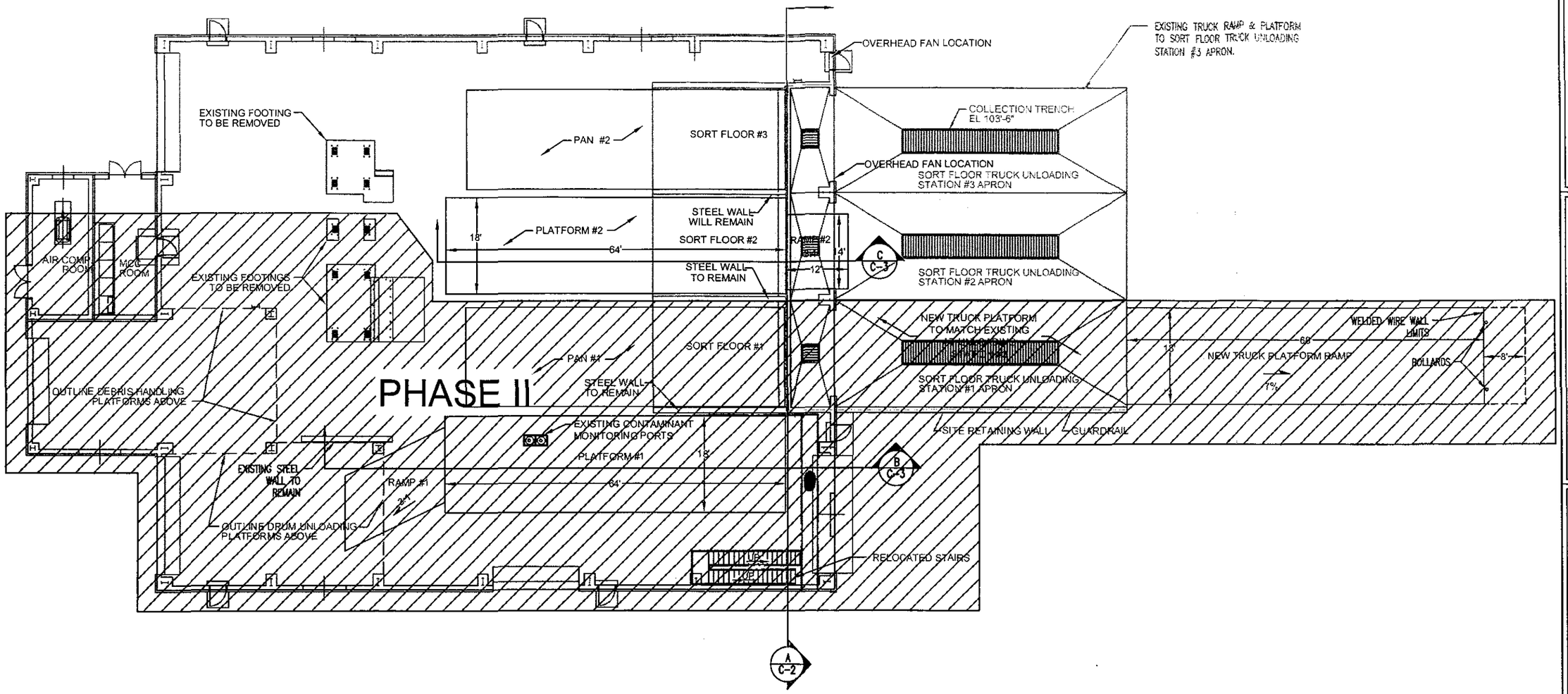
TABLE D-2b

Mix Bin Tanks (Debris Portion) Primary and Secondary Containment Volume Summary			
Unit	Primary Volume (gal)- zero freeboard	Primary Volume (gal)- 2 feet of freeboard	Secondary Containment Capacity (gal)- entire building (debris portion) from Table D-1
Each Mix Bin Tank	61,000	45,780	45,135

TABLE D-2c

Containment Building (Debris Portion) Mix Bin Tanks Primary and Secondary Containment Capacities					
Unit	Primary Containment Capacity (max. gal.)[1]	Primary Containment Capacity (max. design operating gal.)[2]	Primary Containment Capacity (operating gal.)[3]	Secondary Containment Capacity (gal.)[4]	Operating Limit – Liquids (gal.)[5]
MBT-3	61,000	49,590	45,780	45,135	12,000
MBT-4	61,000	49,590	45,780	45,135	12,000

[1] Based on dimensions as illustrated in the "Plan and Elevations" and the "Sections and Details" drawings from Leavitt & Associates Engineers, Inc. and contained in the Request for Proposal for the Stabilization Facility Retrofit, September 2006.
[2] Operating capacity based on engineered structural load capacities.
[3] Operating capacity based on maintaining 2 feet of freeboard.
[4] Mix Bin Tank secondary containment capacity was determined by using the "Actual Containment Volume of Containment System" for the Total – Containment Building (Debris Portion) from Attachment 24, Table D-1 of the November 12, 2004 Permit, less the volumetric footprint of any structures added as part of this modification.
[5] Based on limit in permit, which is the actual amount that can be practically treated in each tank.



2 0 10 5 30 20

SCALE IN FEET

NOTES:

1. THIS DRAWING CREATED FROM DRAWING D2020-A02 PREPARED BY US ECOLOGY FOR THE CONSTRUCTION OF THE BUILDING. DRAWING D2020-A02 WAS LAST REVISED 6/29/1998.
2. SEE MECHANICAL DRAWINGS FOR OVERHEAD FAN PLACEMENT.
3. SEE AS-BUILTS FOR EXISTING TRUCK RAMP AND PLATFORM CONSTRUCTION.
4. SEE STRUCTURAL STEEL DRAWINGS PREPARED BY RULE STEEL FOR STEEL PAN CONSTUCTION. SEE WELDED WIRE WALL DRAWINGS AND SPECIFICATIONS PREPARED BY AMERICAN GEOTECHNICS FOR PLATFORM CONSTRUCTION. SEE MECHANICAL DRAWINGS PREPARED BY MUSGROVE ENGINEERING FOR VENTILATION FAN CONSTRUCTION.
5. WORK DESIGNATED IN PHASE II NOT A PART OF THIS CONTRACT.

American Geotechnics
5260 Chinden Blvd
Boise, Idaho 83714
Phone (208) 658-8700 Fax (208) 658-8703

REVISIONS

NO	DATE	BY	DESCRIPTION
A	7/19/06	RWH	ISSUE FOR AGENCY REVIEW
B	9/8/06	RWH	ISSUE FOR BID

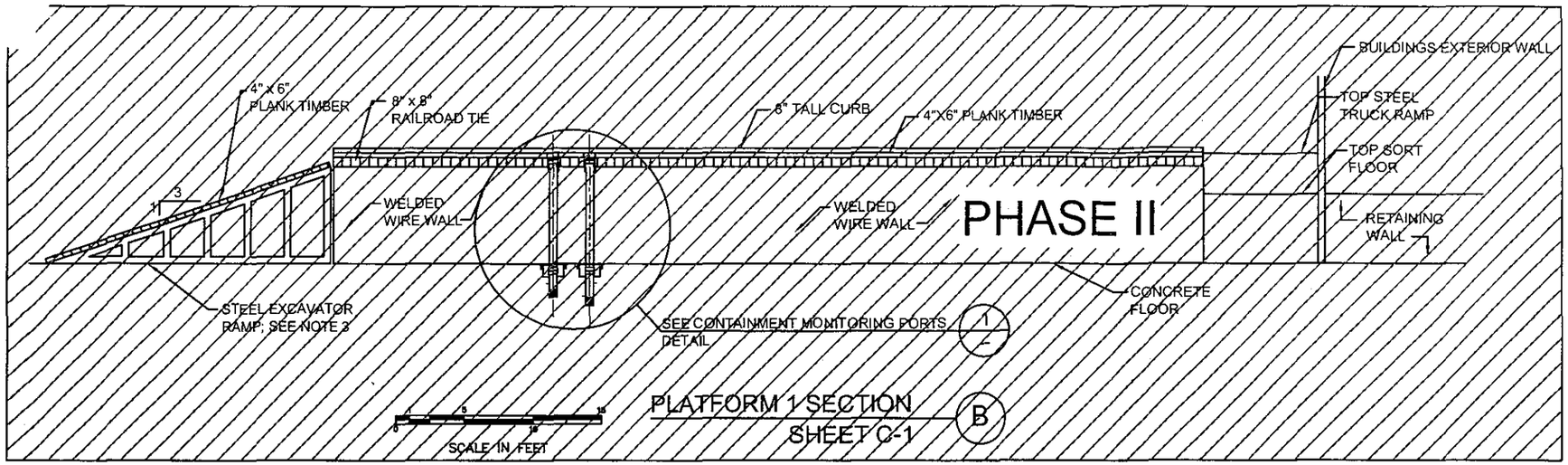
FLOOR PLAN
STABILIZATION FACILITY
US Ecology Idaho, Site B
Grand View, Idaho

PROJECT NO. 06B-G1301

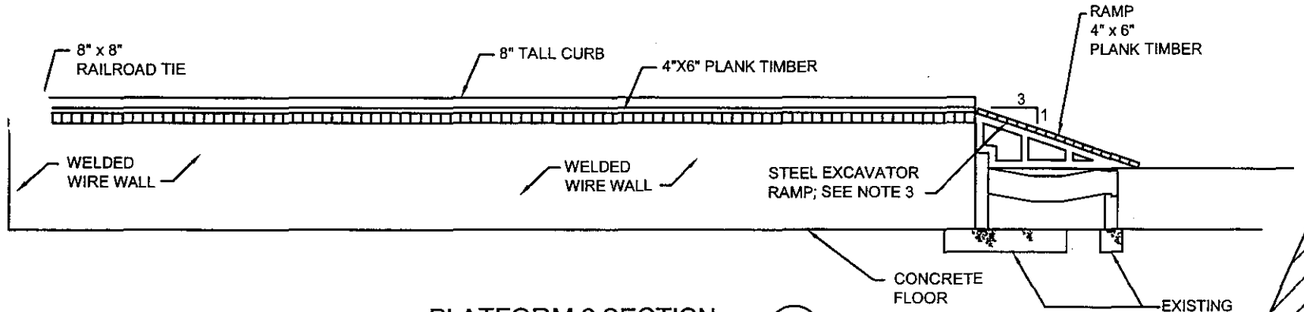
DESIGNED BY: A. Lyman

DATE: June, 2006

SHEET NUMBER: C-1



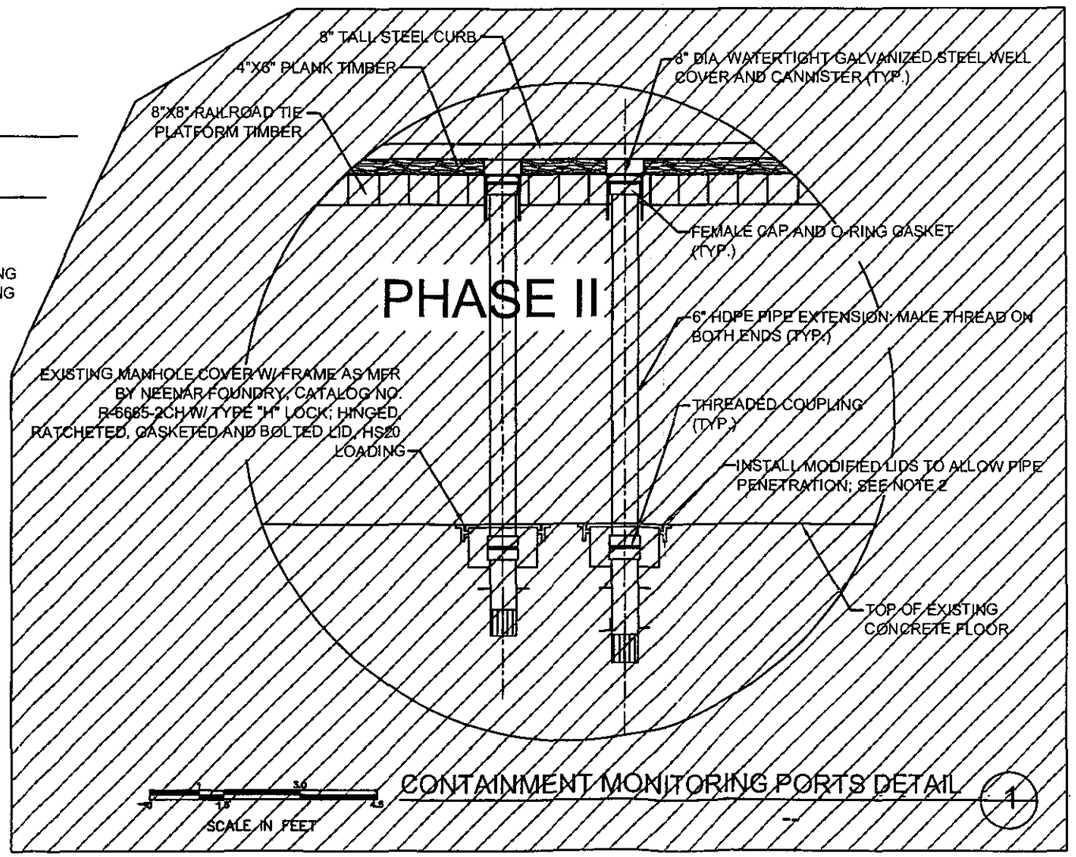
PLATFORM 1 SECTION B
SHEET C-1



PLATFORM 2 SECTION C
SHEET C-1

NOTES:

1. THIS DRAWING CREATED FROM DRAWING D202-C07 PREPARED BY US ECOLOGY FOR THE CONSTRUCTION OF THE BUILDING..
2. CONTAINMENT MONITORING PORT LID SHALL BE GASKETED AND BOLTED DOWN PRIOR TO WELDED WIRE WALL INSTALLATION. SEAL PIPE/LID INTERFACE.
3. RAMP TO BE DESIGNED TO CARRY CAT 325 EXCAVATOR. CONTRACTOR SHALL SUBMIT DESIGN PRIOR TO CONSTRUCTION. RAMP MUST BE MOVABLE, AND NOT ANCHORED TO FLOOR.
4. WORK DESIGNATED IN PHASE II NOT PART OF THIS CONTRACT.



CONTAINMENT MONITORING PORTS DETAIL 1/-

American Geotechnics
5260 Chinden Blvd
Boise, Idaho 83714
Phone (208) 658-8700 Fax (208) 658-8703

REVISIONS NO.	DATE	BY	DESCRIPTION
B	9/8/06	RWH	ISSUE FOR BID

PROJECT NAME: PLATFORM CROSS SECTIONS
Stabilization Facility
US Ecology Idaho, Site B
Grand View, Idaho

PROJECT NO. 06B-G1301

DESIGNED BY: A. Lyman

DATE: June, 2006

SHEET NUMBER: C-3

US ECOLOGY PROCESS TREATMENT BIN

GRAND VIEW, IDAHO

2006

DESIGN CRITERIA:

CODES:	2003 INTERNATIONAL BUILDING CODE
SNOW, WIND, SEISMIC LOAD:	NONE

DESIGN LOADING:

1. THE MATERIAL LOAD IS 110 PCF WITH THE LATERAL LOAD ON THE BIN WALLS DETERMINED AS IF THE MATERIAL BEHAVES LIKE A FLUID.
2. THE BIN HAS BEEN DESIGNED TO SUPPORT A 6' DEPTH OF MATERIAL WITH NO SHOVEL LOAD. (1)
3. WITH A MATERIAL DEPTH OF 3', THE MAXIMUM DESIGN FORCE TO BE EXERTED ON THE BIN IN EITHER THE HORIZONTAL OR DOWNWARD DIRECTION BY THE SHOVEL IS 9000 POUNDS. THIS LOAD IS TO ACT ON A 1" x 36" STRIP. THE LOAD IS NOT TO BE APPLIED TO THE BIN SIDEWALLS ANY HIGHER ABOVE THE BOTTOM OF THE BIN THAN 3'. ONLY THE DESIGNATED SIDE MAY HAVE A SHOVEL LOAD. THE END WALLS ARE NOT DESIGNED FOR A SHOVEL LOAD.
4. MAXIMUM THEORETICAL DEFLECTION OF THE PLATE IS TO BE 0.5"

GENERAL NOTES:

1. USE PROPERLY DESIGNED SHORING, BRACING, UNDERPINNING, ETC. AS NECESSITATED BY CONDITIONS OR AS REQUIRED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENT PARTS DURING ERECTION.

2. NO FIELD REVISIONS TO ANY STRUCTURAL COMPONENTS SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE ENGINEER. THIS INCLUDES (BUT IS NOT LIMITED TO) REVISIONS DUE TO MISLOCATION, MISFIT OR ANY OTHER CONSTRUCTION ERRORS.

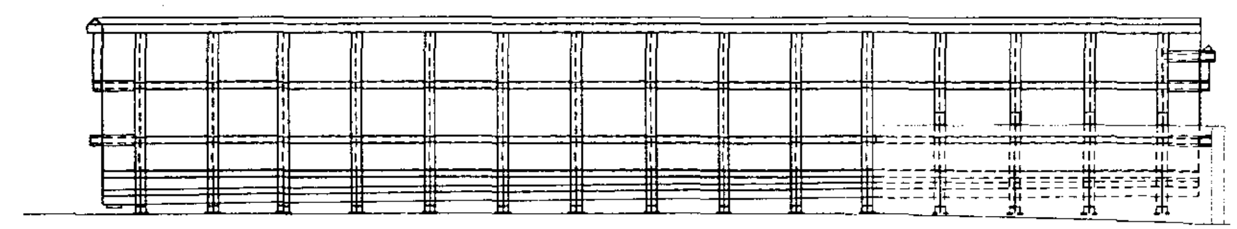
3. NO OPENING SHALL BE PLACED IN ANY STRUCTURAL MEMBER (OTHER THAN AS INDICATED ON APPROVED SHOP DRAWINGS) UNTIL THE LOCATION HAS BEEN APPROVED BY THE STRUCTURAL ENGINEER.

4. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS.

MATERIALS:

A. SPECIFICATIONS: AISC ASD 9TH ED, AWS D1.1 & D1.6

B. MATERIALS:
BIN LINER: T1 UNLESS NOTED OTHERWISE
WIDE FLANGE: A992
STEEL TUBES: A-500B (Fy=46 ksi)
CLIP ANGLES AND GUSSET PLATES: A36 UNLESS OTHERWISE NOTED
WELD: E70-XX ELECTRODES



SHEET LEGEND

Sheet No.	Rev.	DESCRIPTION
1	0	GENERAL NOTES
2	0	PLAN AND ELEVATIONS
3	0	LEAK DETECTION RETAINMENT PAN
4	0	SECTIONS AND DETAILS

LEAVITT & ASSOCIATES ENGINEERS, INC.
STRUCTURAL * CIVIL SURVEYING

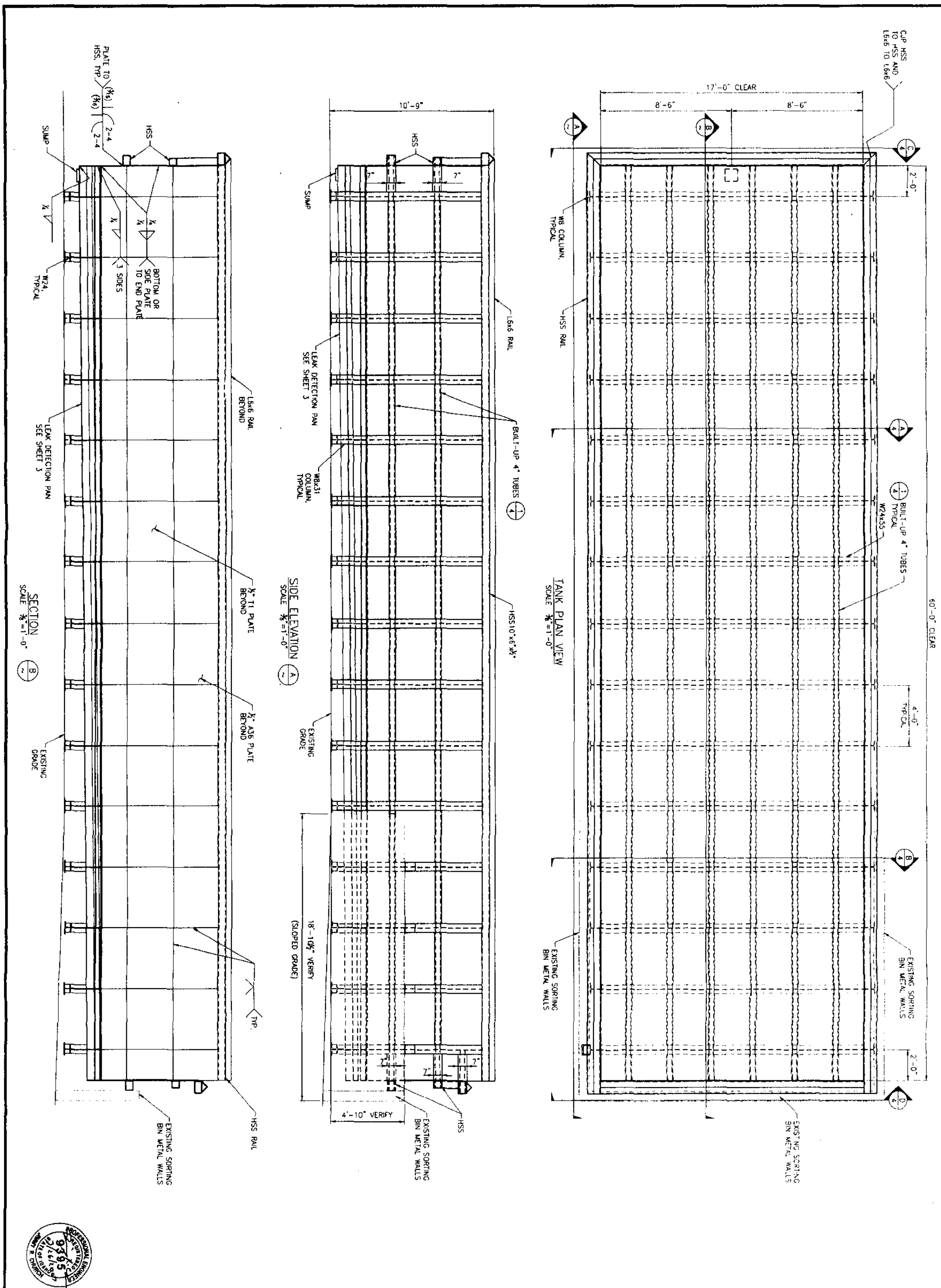
GENERAL NOTES

RULE STEEL TANKS, INC.

REVISIONS

No.	DATE	BY	DESCRIPTION
1	3/23/07	KGH	REVISED TO INCREASE DESIGN FILL DEPTH
0	11/27/06	KGH	ISSUED FOR APPROVAL

SCALE: AS NOTED
Sheet Number: 1 of 4



1	3/23/07	KGH	REVISED TO INCREASE DESIGN FILL DEPTH
0	11/27/06	KGH	ISSUED FOR APPROVAL
No.	DATE	BY	DESCRIPTION

REVISIONS

Scale: 3/8"=1'-0"

Sheet Number: 2 of 4

RULE STEEL TANKS, INC.

21986 Middleton Rd.
Caldwell, Idaho 83605

(208) 585-3031
fax: (208) 585-2506
(800) 769-5636

PLAN AND ELEVATIONS

Client: RULE STEEL

Job Number: 06112.007

Cad file: treatmentbin.dwg

Designed By: J.R.C.

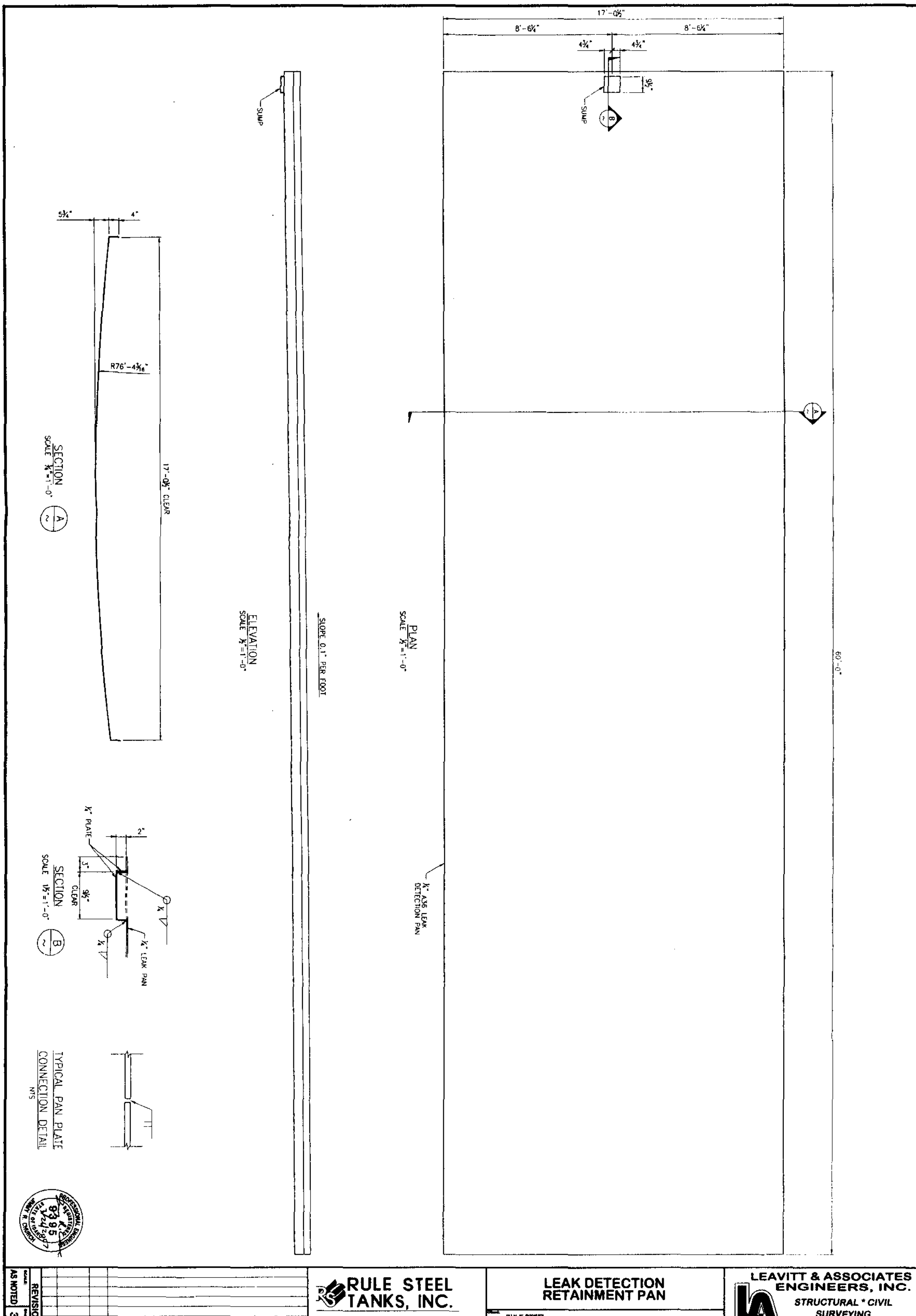
Drawn By: K.G.H.

Checked By: M.C.B.

Date: 09/15/2006

LEAVITT & ASSOCIATES ENGINEERS, INC.

STRUCTURAL * CIVIL SURVEYING



No.	DATE	BY	DESCRIPTION
1	8/23/07	KGH	REVISED TO INCREASE DESIGN FILL DEPTH
0	11/27/06	KGH	ISSUED FOR APPROVAL

REVISIONS

Scale: AS NOTED

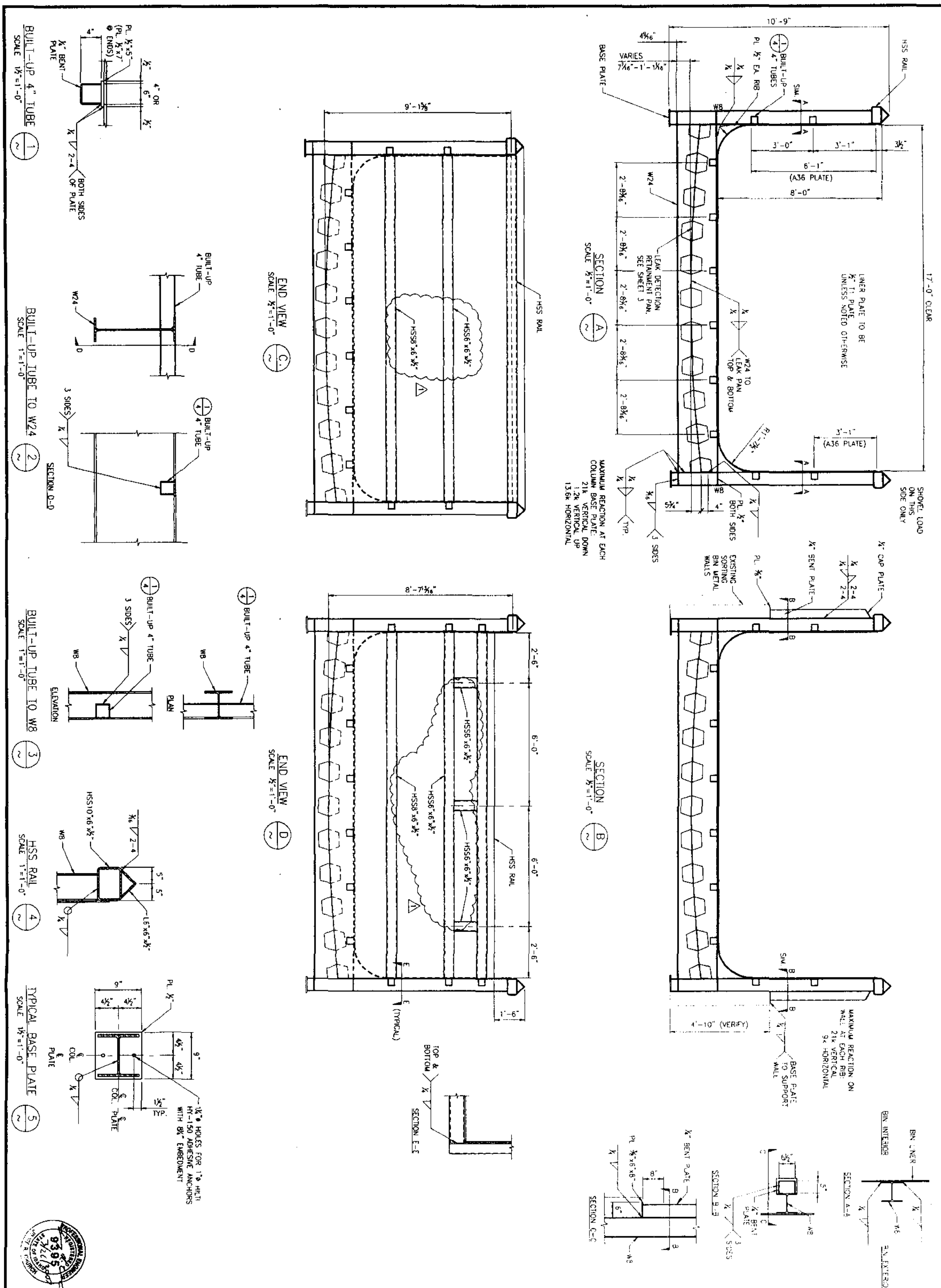
Sheet Number: 3 of 4

RULE STEEL TANKS, INC.
21986 Middleton Rd
Caldwell, Idaho 83605
(208) 585-3031
Fax (208) 585-2506
(800) 769-5636

LEAK DETECTION RETAINMENT PAN

Client: RULE STEEL
Job Number: 06112.007
Cad file: treatmentbin.dwg
Designed By: J.R.C.
Drawn By: K.G.H.
Checked By: M.C.B.
Date: 09/16/2006

LEAVITT & ASSOCIATES ENGINEERS, INC.
STRUCTURAL * CIVIL
SURVEYING



No.	DATE	BY	DESCRIPTION
1	3/23/07	KGH	REVISED TO INCREASE DESIGN FILL DEPTH
0	11/27/06	KGH	ISSUED FOR APPROVAL

REVISIONS

Scale: AS NOTED

Sheet Number: 4 of 4

RULE STEEL TANKS, INC.

21986 Middleton Rd
Caldwell, Idaho 83605

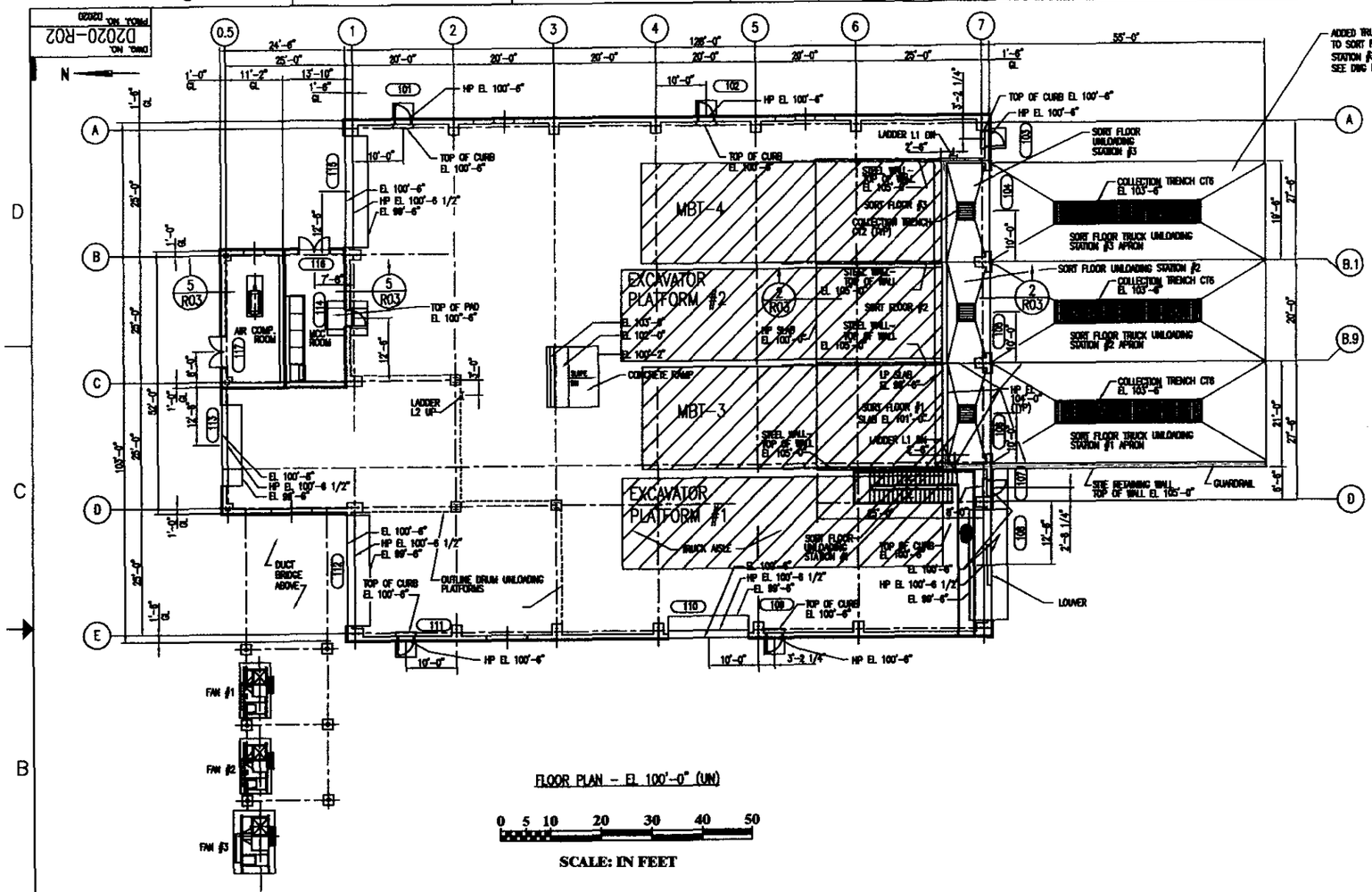
(208) 585-3031
fax (208) 585-2506
(800) 769-5636

SECTIONS AND DETAILS

Client: RULE STEEL
Job Number: 06112.007
Cad file: treatmentbin.dwg
Designed by: J.R.C. Drawn by: K.G.H. Checked by: M.C.B. Date: 09/15/2006

LEAVITT & ASSOCIATES ENGINEERS, INC.

*STRUCTURAL * CIVIL SURVEYING*



FLOOR PLAN - EL 100'-0" (UN)

0 5 10 20 30 40 50

SCALE: IN FEET

REFERENCE DRAWINGS	
DWG NO.	TITLE
R03	BUILDING SECTIONS - SHEET 1
R05	TYPICAL DETAILS

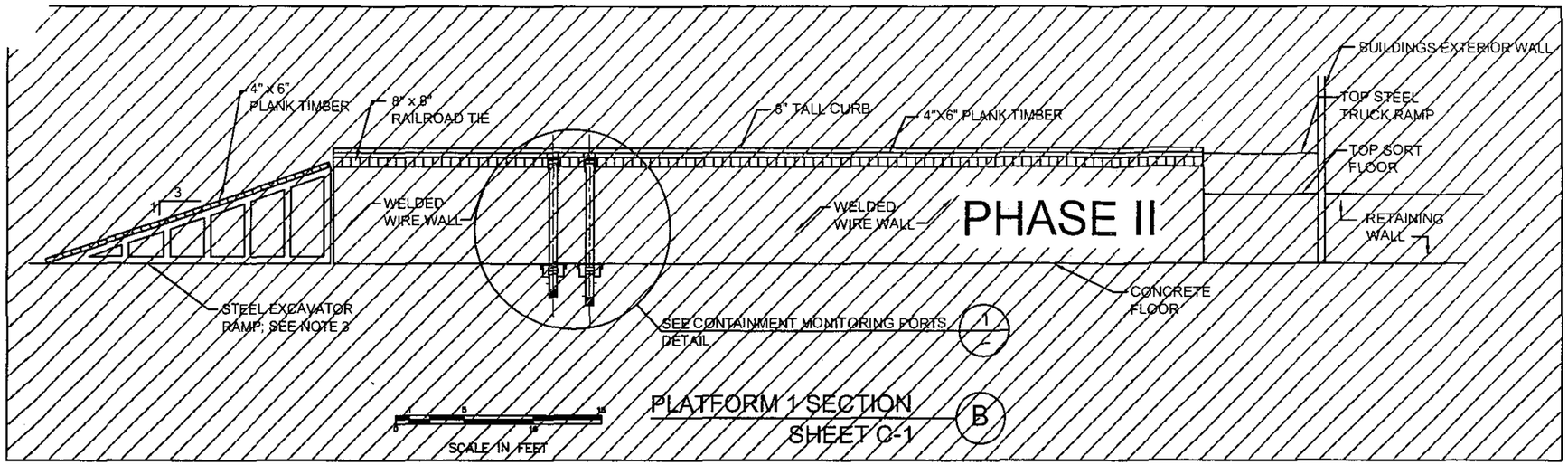
REV	DESCRIPTION
H	NOVEMBER 6, 2006 PERMIT MODIFICATION
G	2003 PERMIT RENEWAL
F	ISSUED FOR B PERMIT APPLICATION
E	ADDED PRIMARY CRUSHER
D	FOR EPA SUBMISSION 9/03
C	ADDED CAMPAIGN BINS
B	FOR CLIENT REVIEW
A	FOR SUBMISSION TO EPA

USEcology Idaho
an American Ecology company

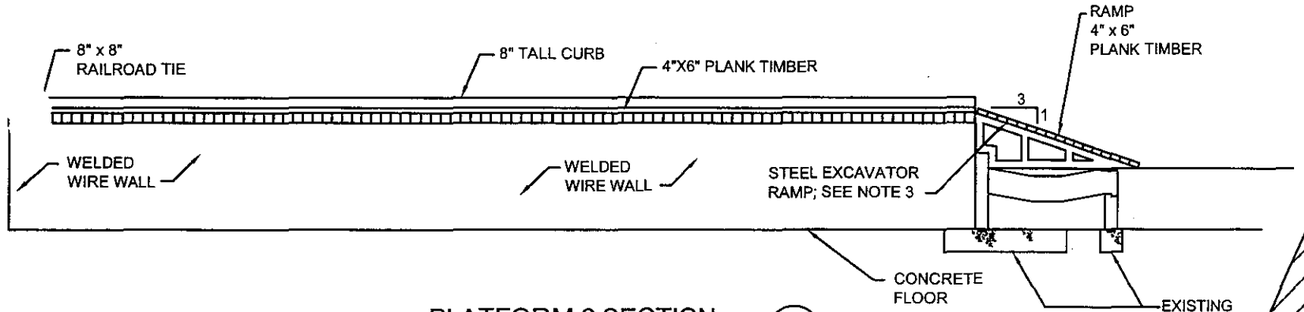
SITE B
GRAND VIEW, ID
US EPA ID NO. IDD 073 114 854

TITLE:
GENERAL ARRANGEMENT
CONTAINMENT BUILDING (DEBRIS AREA)
FLOOR PLAN

DWG. NO. D2020-R02
PROJ. NO. D2020



PLATFORM 1 SECTION B
SHEET C-1



PLATFORM 2 SECTION C
SHEET C-1

NOTES:

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2. CONTAINMENT MONITORING PORT LID SHALL BE GASKETED AND BOLTED DOWN PRIOR TO WELDED WIRE WALL INSTALLATION. SEAL PIPE/LID INTERFACE.
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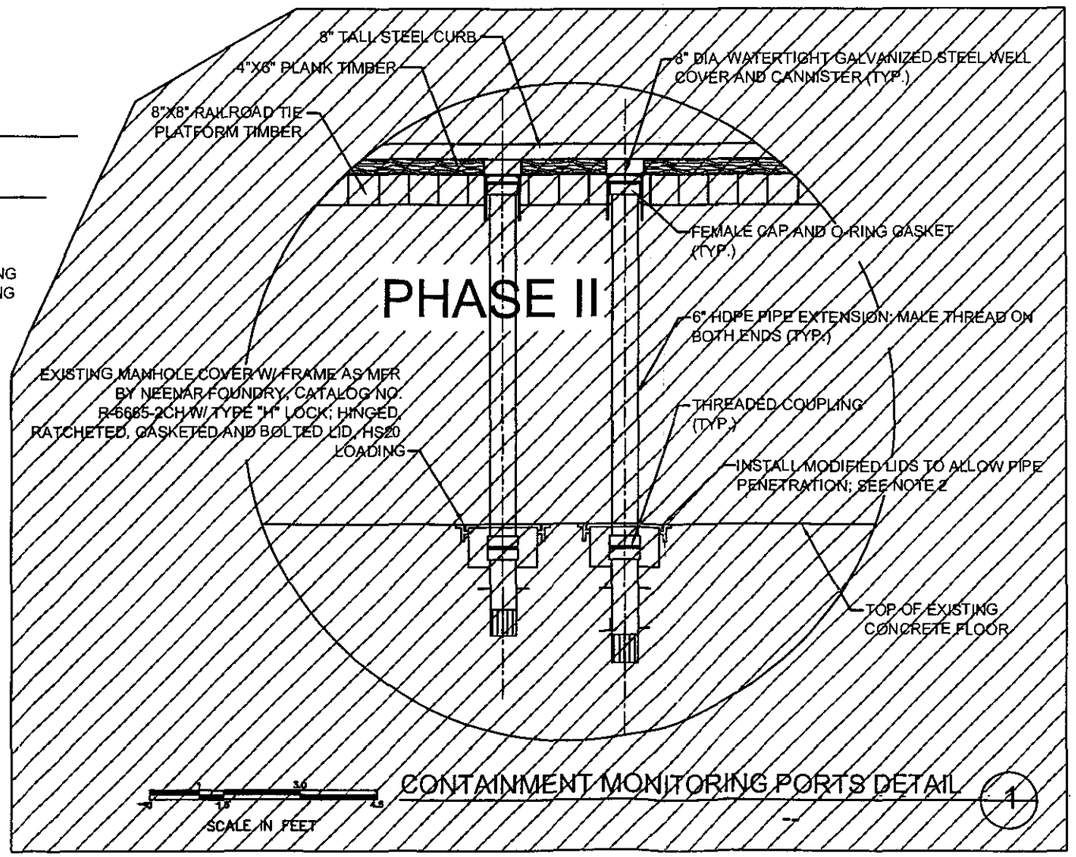

CONTAINMENT MONITORING PORTS DETAIL 1/-

American Geotechnics
5260 Chinden Blvd
Boise, Idaho 83714
Phone (208) 658-8700 Fax (208) 658-8703

REVISIONS NO.	DATE	BY	DESCRIPTION
B	9/8/06	RWH	ISSUE FOR BID

PROJECT NAME: PLATFORM CROSS SECTIONS
Stabilization Facility
US Ecology Idaho, Site B
Grand View, Idaho

PROJECT NO. 06B-G1301

DESIGNED BY: A. Lyman

DATE: June, 2006

SHEET NUMBER: C-3

US ECOLOGY PROCESS TREATMENT BIN

GRAND VIEW, IDAHO

2006

DESIGN CRITERIA:

CODES:	2003 INTERNATIONAL BUILDING CODE
SNOW, WIND, SEISMIC LOAD:	NONE

DESIGN LOADING:

1. THE MATERIAL LOAD IS 110 PCF WITH THE LATERAL LOAD ON THE BIN WALLS DETERMINED AS IF THE MATERIAL BEHAVES LIKE A FLUID.
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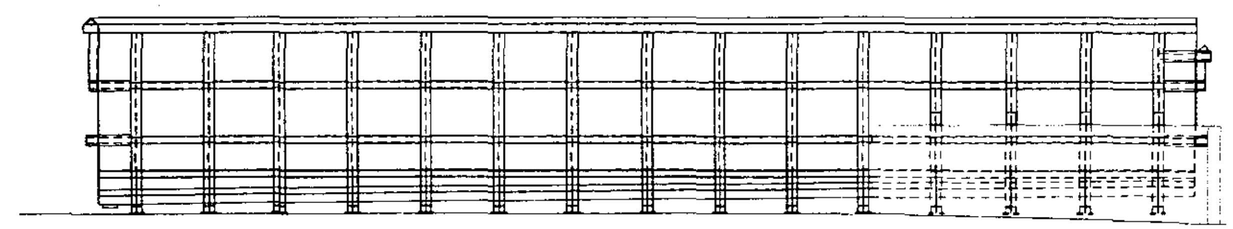
4. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS.

MATERIALS:

A. SPECIFICATIONS: AISC ASD 9TH ED, AWS D1.1 & D1.6

B. MATERIALS:
BIN LINER: T1 UNLESS NOTED OTHERWISE
WIDE FLANGE: A992
STEEL TUBES: A-500B (Fy=46 ksi)
CLIP ANGLES AND GUSSET PLATES: A36 UNLESS OTHERWISE NOTED
WELD: E70-XX ELECTRODES



SHEET LEGEND

Sheet No.	Rev.	DESCRIPTION
1	0	GENERAL NOTES
2	0	PLAN AND ELEVATIONS
3	0	LEAK DETECTION RETAINMENT PAN
4	0	SECTIONS AND DETAILS

LEAVITT & ASSOCIATES ENGINEERS, INC.
STRUCTURAL * CIVIL
SURVEYING

GENERAL NOTES

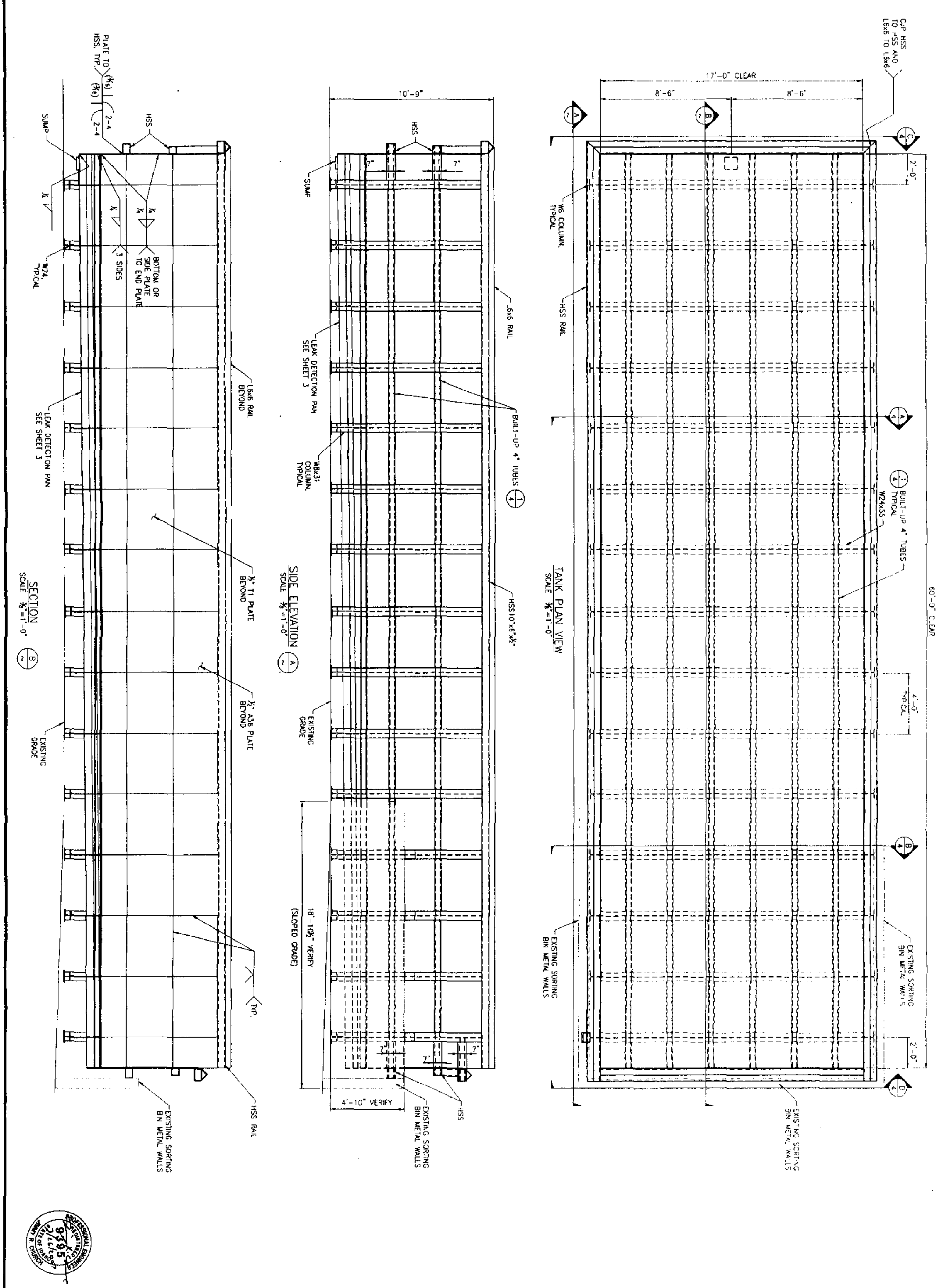
RULE STEEL TANKS, INC.

No.	DATE	BY	DESCRIPTION
1	3/23/07	KGH	REVISED TO INCREASE DESIGN FILL DEPTH
0	11/27/06	KGH	ISSUED FOR APPROVAL

REVISIONS

AS NOTED

1 of 4



REVISIONS			
1	3/23/07	KGH	REVISED TO INCREASE DESIGN FILL DEPTH
0	11/27/06	KGH	ISSUED FOR APPROVAL
No.	DATE	BY	DESCRIPTION

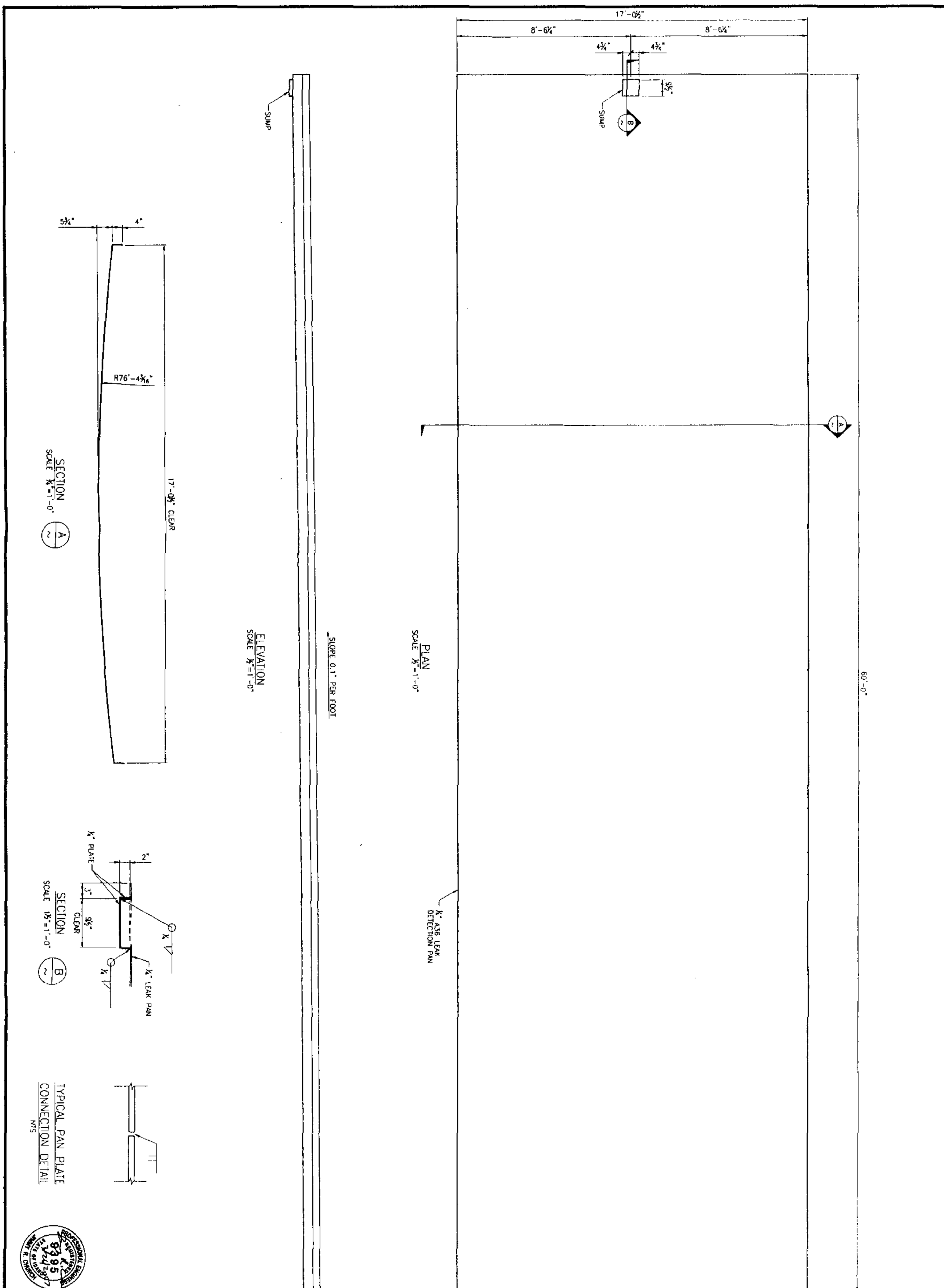
SCALE: 3/8"=1'-0"
Sheet Number: 2 of 4

RULE STEEL TANKS, INC.
21986 Middleton Rd., Caldwell, Idaho 83605
(208) 585-3031
fax: (208) 585-2506
(800) 769-5636

PLAN AND ELEVATIONS

Client: RULE STEEL
Job Number: 06112.007
Cad file: treatmentbin.dwg
Designed By: J.R.C. | Drawn By: K.G.H. | Checked By: M.C.B. | Date: 09/15/2006

LEAVITT & ASSOCIATES ENGINEERS, INC.
*STRUCTURAL * CIVIL SURVEYING*



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0	11/27/06	KGH	ISSUED FOR APPROVAL
No.	DATE	BY	DESCRIPTION

REVISIONS

Scale: AS NOTED

Sheet Number: 3 of 4

RULE STEEL TANKS, INC.

21986 Middleton Rd
Caldwell, Idaho 83605

(208) 585-3031
Fax (208) 585-2506
(800) 769-5636

LEAK DETECTION RETAINMENT PAN

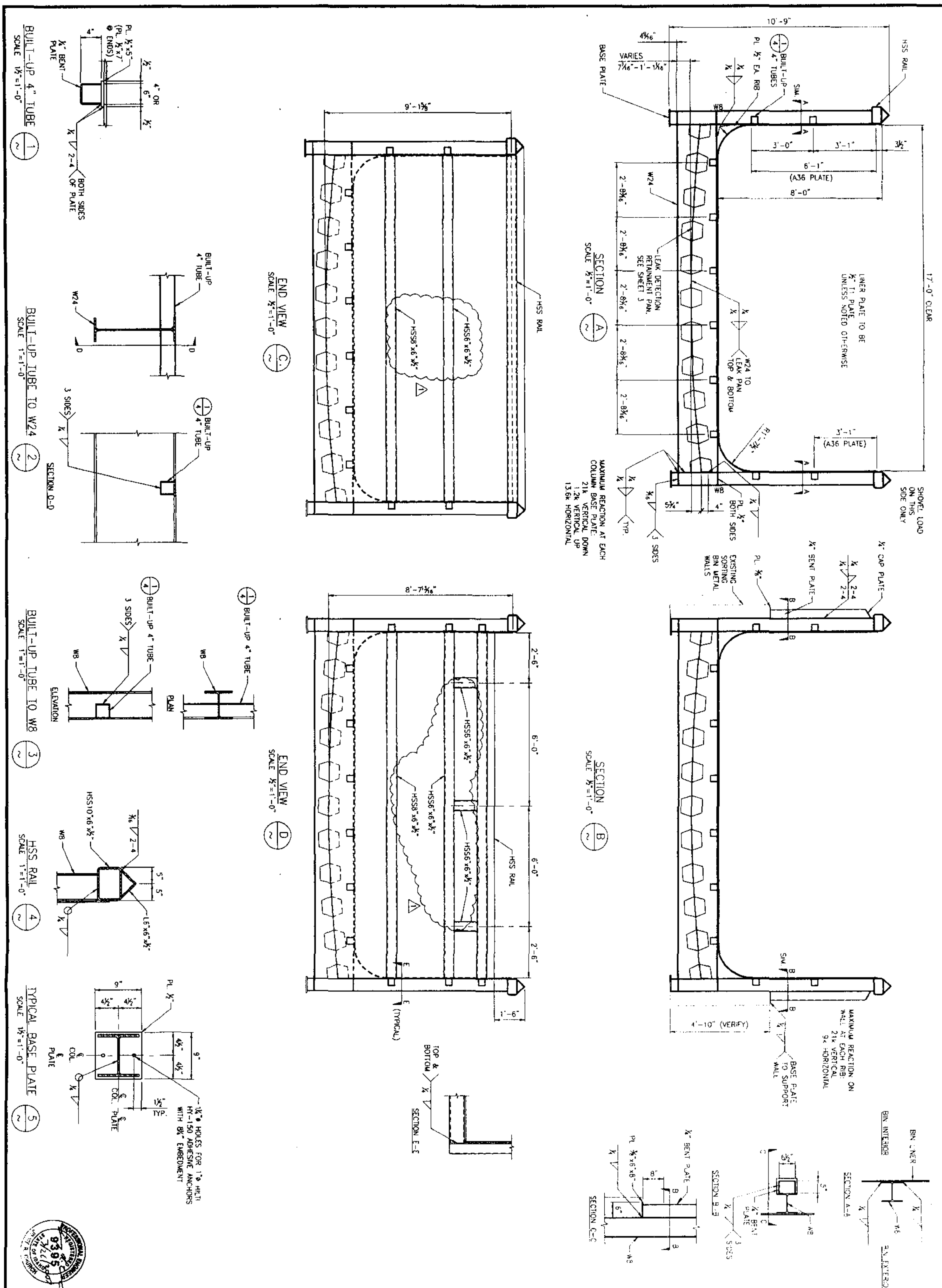
Client: RULE STEEL

Job Number: 06112.007 | Cad file: treatmentbin.dwg

Designed By: J.R.C. | Drawn By: K.G.H. | Checked By: M.C.B. | Date: 09/16/2006

LEAVITT & ASSOCIATES ENGINEERS, INC.

*STRUCTURAL * CIVIL SURVEYING*



REVISIONS			
1	3/23/07	KGH	REVISED TO INCREASE DESIGN FILL DEPTH
0	11/27/06	KGH	ISSUED FOR APPROVAL
No.	DATE	BY	DESCRIPTION

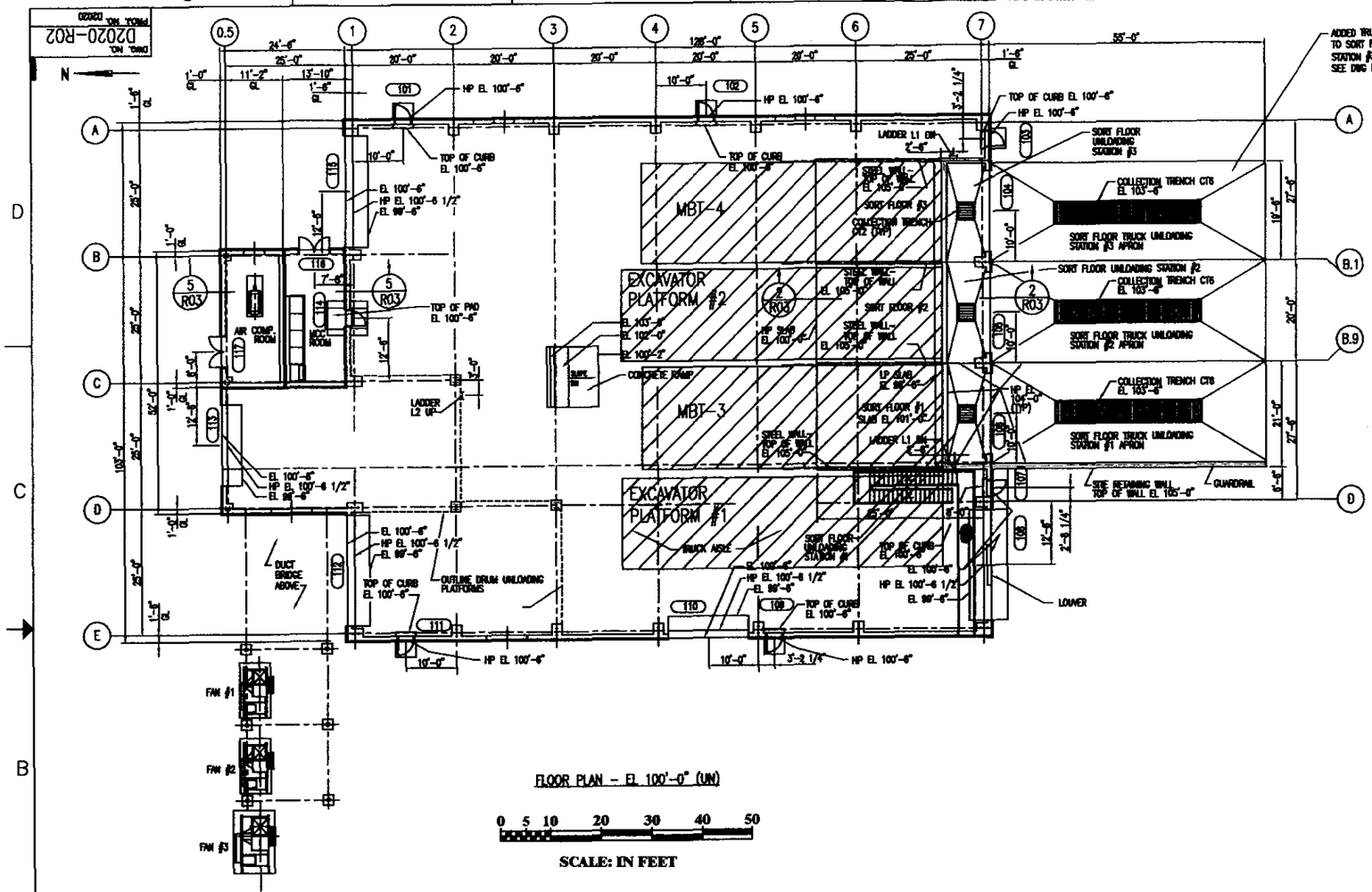
Scale: AS NOTED
Sheet Number: 4 of 4

RULE STEEL TANKS, INC.
21168 Middleton Rd, Caldwell, Idaho 83605
(208) 585-3031
Fax (208) 585-2506
(800) 769-5636

SECTIONS AND DETAILS

Client: RULE STEEL
Job Number: 06112.007
Cad file: treatmentbin.dwg
Designed: J.R.C.
Drawn: K.G.H.
Checked: M.C.B.
Date: 09/15/2006

LEAVITT & ASSOCIATES ENGINEERS, INC.
STRUCTURAL * CIVIL
SURVEYING



FLOOR PLAN - EL 100'-0" (UN)

0 5 10 20 30 40 50

SCALE: IN FEET

REFERENCE DRAWINGS	
DWG NO.	TITLE
R03	BUILDING SECTIONS - SHEET 1
R05	TYPICAL DETAILS

REV	DESCRIPTION
H	NOVEMBER 6, 2006 PERMIT MODIFICATION
G	2003 PERMIT RENEWAL
F	ISSUED FOR B PERMIT APPLICATION
E	ADDED PRIMARY CRUSHER
D	FOR EPA SUBMISSION 9/03
C	ADDED CAMPAIGN BINS
B	FOR CLIENT REVIEW
A	FOR SUBMISSION TO EPA

USEcology Idaho
an American Ecology company

SITE B
GRAND VIEW, ID
US EPA ID NO. IDD 073 114 854

TITLE:
GENERAL ARRANGEMENT
CONTAINMENT BUILDING (DEBRIS AREA)
FLOOR PLAN

DWG. NO. D2020-R02
PROJ. NO. D2020